AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

Claim 1 (Currently Amended):   A method comprising:

receiving a command from a client to specify an export limit for routes exported from an exterior routing protocol executing on a network device to an interior routing protocol executing on the network device;

maintaining a count of routes exported from the exterior routing protocol executing on the network device to the interior routing protocol executing on the network device; ~~and~~

rejecting additional routes exported from the exterior routing protocol to the interior routing protocol when the count exceeds the export limit set by the command;

updating routing information to associate the routes with a maximum metric that defines a maximum distance from the network device to neighboring network devices when the count exceeds the export limit; and

advertising the updated routing information to a network device.

Claims 2–5 (Cancelled).

Claim 6 (Currently Amended):   The method of claim 1, further comprising:

updating the routing information to set an overload bit of a link state prefix associated with the routes when the count exceeds the export limit~~; and~~

~~advertising the updated routing information to a network device~~.

Claim 7 (Cancelled).

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Claim 8 (Currently Amended):   A method comprising:

receiving a prefix limit command that specifies an export limit and an associated one of a plurality of instances of an interior routing protocol executing on a network device;

maintaining respective counts ~~a count~~ of routes exported from an exterior routing protocol executing on [[a]] the network device to each of the instances of the [[an]] interior routing protocol executing on the network device;

identifying one of the instances of the interior routing protocol to which the routes were exported;

comparing the respective count for the identified one of the instances to the prefix limit specified by the command for the identified instance; and

rejecting additional routes exported to the identified one of the instances of the interior routing protocol based on the comparison when the count exceeds the export limit for the instance.

~~rejecting additional routes exported from an exterior routing protocol executing on the network device to the interior routing protocol executing on the network device when the count exceeds an export limit; and~~

~~waiting for intervention by the client before accepting the additional routes.~~

Claims 9-10 (Cancelled).

Claim 11 (Currently Amended):   A method comprising:

receiving at a network device an export limit command from a client; ~~and~~

counting, in response to the export limit command, a number of routes exported from an exterior routing protocol process executing on the network device to an interior routing protocol process executing on the network device; and

when the number of routes exported from the exterior routing protocol process to the interior routing protocol process exceeds an export limit, operating the network device in an overload condition in which the network device: (i) updates routing information of the interior routing protocol to clear the routes previously exported from the exterior routing protocol, (ii) rebuilds the routing information of the interior routing protocol by updating the routing information of the interior routing protocol to associate interior routes with a maximum metric that defines a maximum distance from the network device to neighboring network devices, and (iii) advertises the updated routing information to another network device.

Claim 12 (Original): The method of claim 11, further comprising:

receiving from the client an export limit indicative of a maximum number of routes that can be exported from the exterior routing protocol process to the interior routing protocol process;

comparing the counted number of routes to the export limit; and

rejecting additional routes exported from the exterior routing protocol process to the interior routing protocol process when the counted number of routes exceeds the export limit.

Claim 13 (Previously Presented):   The method of claim 12, further comprising waiting for intervention from the client before accepting the additional routes from the exterior routing protocol.

Claim 14 (Cancelled).

Claim 15 (Original): The method of claim 11, further comprising updating routing information of the network device when the count exceeds the export limit to clear the routes exported from the exterior routing protocol.

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Claims 16-17 (Cancelled).

Claim 18 (Currently Amended):   A system comprising:

a management interface to receive a command that specifies an export limit; ~~and~~

a control unit that limits a number of routes exported from an external routing protocol executing on a network device to an interior routing protocol executing on the network device in accordance with the export limit; and

a plurality of instances of the interior routing protocol executing on the system,

wherein the control unit separately limits the number of routes exported to each of the instances,

wherein the control unit includes a plurality of prefix counters to maintain respective counts for the number of routes exported to each of the instances, and

wherein the control unit identifies an instance of the interior routing protocol to which routes were exported, accesses the respective prefix counter to compare the stored count with an associated prefix limit, and rejects additional routes exported from the exterior routing protocol to the identified instance based on the comparison.

Claim 19 (Original): The system of claim 18, further comprising a prefix counter to count the routes exported to the interior routing protocol and generate a prefix count, wherein the control unit compares the prefix count to the export limit and limits the number of routes exported to the interior routing protocol based on the comparison.

Claim 20 (Original): The system of claim 19, wherein the control unit rejects additional routes to be exported to the interior routing protocol when the prefix count exceeds the export limit.

Claim 21 (Original): The system of claim 18, further including an exterior routing protocol that supports a larger number of routes than the interior routing protocol.

Claim 22 (Original): The system of claim 21, wherein the control unit communicates with an internet service provider via the exterior routing protocol.

Claims 23-25 (Cancelled).

Claim 26 (Original): The system of claim 18, wherein the system comprises a router.

Claim 27 (Currently Amended):   A computer-readable medium comprising instructions to cause a processor to:

    present a management interface to receive a command from a client;

    receive a command, from the client through the management interface, to specify an export limit for routes exported from an exterior routing protocol executing on a network device to an interior routing protocol executing on the network device;

    maintain <u>respective counts</u> <s>a count</s> of routes exported from an exterior routing protocol executing on the network device to <u>a plurality of instances of</u> an interior routing protocol executing on the network device; and

    <u>identify one of the instances of the interior routing protocol to which the routes were exported;</u>

    <u>compare the respective count for the identified one of the instances to an export limit; and</u>

    <u>reject additional routes to be exported from the exterior routing protocol to the identified one of the instances based on the comparison.</u>

    <s>reject additional routes to be exported from the exterior routing protocol based on the count and an export limit</s>

Claims 28–29 (Cancelled).

Claim 30 (Previously Presented): The computer-readable medium of claim 27, further comprising instructions to cause the processor to operate in an overload condition when the count exceeds the export limit to:

update routing information to associate interior routes with a maximum metric that defines a maximum distance from the network device to neighboring network devices;

update the routing information to clear the routes exported from the exterior routing protocol;

advertise the updated routing information; and

wait for intervention before returning to a normal mode of operation.

Claim 31 (Cancelled).

Claim 32 (Currently Amended): The computer-readable medium of claim 27~~31~~, instructions to cause the processor to receive a prefix limit command that specifies the export limit and an associated one of the instances of the interior routing protocol, and maintain the respective count for the specified one of the instances in response to the command.

Claim 33 (Previously Presented): A method comprising:

receiving a command to direct a network device to count routes exported from an exterior routing protocol executing on the network device to an interior routing protocol executing on the network device;

receiving an export limit indicative of a maximum number of routes that may be exported from the exterior routing protocol to a specific instance of the interior routing protocol;

exporting routes from the exterior routing protocol to the specific instance of the interior routing protocol;

incrementing a prefix count each time a route is exported from the exterior routing protocol to the specific instance of the interior routing protocol;

comparing the prefix count to the export limit; and

rejecting additional routes from the exterior routing protocol if the prefix count exceeds the export limit.

Claims 34-38 (Cancelled).

Claim 39 (Currently Amended): The ~~system~~ of claim 26, ~~network device of claim 37,~~ wherein the <u>management</u> interface receives the command from a remote client.

Claim 40 (Currently Amended): The <u>system</u> ~~network device~~ of claim 39, wherein the remote client comprises one of a human user and an automated script.

Claim 41 (Currently Amended): The <u>system</u> ~~network device~~ of claim 37, wherein the first routing protocol module comprises an exterior routing protocol module and the second routing protocol module comprises an interior routing protocol module.